

From: [Mitchell, Tanya](#)
To: [Walls \(Young\), Suzy](#)
Cc: [Persico, John](#); "[\(pete.bergeron@chevron.com\)](#)"; [Draikiwicz, Michael \(michael.draikiwicz@novartis.com\)](#); [Gary M. Fisher](#)
Subject: RE: Rolling Knolls MW-20 installation
Date: Thursday, June 04, 2015 7:54:27 AM

Confirmation of this email is requested.

Suzy,

I have reviewed the field logs and supporting documentation regarding the construction of MW-20. The overlaying organic layer is about 9.5 feet thick, followed by grey silts. It appears that the well was drilled to 17' due to organic material. This is deeper than most of the perimeter wells and in this case possibly could bypass contamination at a shallower depth.

Based on the aforementioned, there was some discussion between the driller and ARCDASIS regarding how to proceed with the well construction. It should be noted that EPA was not contacted by ACRADIS to participate in the decision. ARCADIS decided to screen MW-20 from 5.5'-9'. This appears to be within the organic muck silt/clay material. However, if the screen was set deeper where the competent material was, the screen may have been set at a depth that could possibly bypass contamination. This MW would also be the only well along the perimeter with a screen set at that depth.

Based on the documentation provided, it has been concluded that MW-20 was not installed in accordance with the approved FCR-06: *When logging is complete an 8-inch diameter steel or PVC casing will be driven approximately 2 feet into the stable substrate underlying the wet area.* The PVC casing was 6" and was to be installed 1-2' into "competent substrate," which this organic material is not. Subsequently, the analytical results may be biased high for unfiltered samples for analytes that may sorbed onto organic materials due to sample turbidity.

Based on the aforementioned, a FCR is required and shall document the deviation in the PVC casing size and the inability to install the casing in competent substrate. The FCR should also note that these actions were implemented without prior discussion or EPA consistent. Please submit the FCR within five (5) days of receipt of this email. As previously discussed with ARCADIS, EPA should be consulted if there are any changes to the approved SAP/QAPP or FCR.

Should you have any questions or concerns regarding this email, please notify me within three days of receipt of this email.

Regards,
Tanya

From: Mitchell, Tanya
Sent: Thursday, May 28, 2015 2:04 PM
To: Walls (Young), Suzy
Cc: Persico, John; '[\(pete.bergeron@chevron.com\)](#)'; Draikiwicz, Michael ([michael.draikiwicz@novartis.com](#)); Gary M. Fisher
Subject: RE: Rolling Knolls MW-20 installation

Hi Suzy,

Thank you for the requested information. I will review for consistency with the approved SAP and FCR documentation.

Regards,
Tanya

From: Walls (Young), Suzy [<mailto:Suzy.Walls@arcadis-us.com>]
Sent: Thursday, May 28, 2015 1:25 PM
To: Mitchell, Tanya
Cc: Persico, John; '[\(pete.bergeron@chevron.com\)](#)'; Draikiwicz, Michael ([michael.draikiwicz@novartis.com](#)); Gary M. Fisher

Subject: RE: Rolling Knolls MW-20 installation

Tanya,

Here is a summary of the construction of MW-20. I have also attached the logbook notes and the core log.

Thursday – May 21

- Finished constructing boardwalk and work platform at MW-20.
- Hand auger MW-20 to 5 ft bgs. Black-dark brown organic rich soil. No clay encountered.
- Boring advanced to 15 ft bgs. 1 ft of clay recovered from 9 to 10 ft bgs. Likely organic matter, muck and roots from 5 to 9 ft bgs. Limited recovery from 10 to 15 ft. Likely dark grey fine-medium sands from 10 to 15 ft.

Friday – May 22

- Advance boring at MW-20 from 15.0 to 17.0 feet. Clay from 16.0 to 17.0 ft.
- Boring abandoned with grout. Will resume drilling after grout cures.

Tuesday – May 26

- Install MW-20 with 6 inch casing from 0.0 to 4.0 ft bgs. Bentonite/cement seal from 0.0 to 5.0 ft bgs. No. 00 sand from 5.0 to 5.2 ft. bgs. Sand filter pack from 5.0 to 9.0 ft bgs. Screen constructed from 5.5 to 9.0 ft bgs.

Thanks,

Suzy

From: Walls (Young), Suzy [mailto:Suzy.Walls@arcadis-us.com]

Sent: Wednesday, May 27, 2015 4:09 PM

To: Mitchell, Tanya

Cc: Persico, John; ' (pete.bergeron@chevron.com)'; Draikiwicz, Michael (michael.draikiwicz@novartis.com); Gary M. Fisher; Ricci, Richard F.; Guthertz, Andrew

Subject: RE: Rolling Knolls MW-20 installation

Tanya,

I've spoken with our field crew and don't believe there were any major complications with the well installation for MW-20; however, I have asked the crew to send me their notes on the installation and a copy of the field log. I will have those to you tomorrow.

Thanks,

Suzy

From: Mitchell, Tanya [mailto: Mitchell.Tanya@epa.gov]

Sent: Wednesday, May 27, 2015 6:59 AM

To: Walls (Young), Suzy

Cc: Persico, John; ' (pete.bergeron@chevron.com)'; Draikiwicz, Michael (michael.draikiwicz@novartis.com); Gary M. Fisher

Subject: Rolling Knolls MW-20 installation

Importance: High

Confirmation of this email is requested.

Suzy,

It has been report that there was some complications with the installation of MW-20. Some questions have been raised regarding how the well was actually screened and constructed as opposed to what was approved. As previously requested, please notify me when there is any exception to the approved SAP.

Please forward a brief summary of the installation of MW-20 and a copy of the field logs associated with the installation of MW-20. This information is requested ASAP and no later than COB May 28, 2015.

Should you have any questions or concerns regarding this email, please notify me immediately upon receipt of this email.

Regards,

Tanya